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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/433,730	11/03/1999	STEVEN T. JAFFE	33754/JWE/B6	2909

7590 07/17/2002
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EXAMINER

TSE, YOUNG TOI

ART UNIT PAPER NUMBER

2634

DATE MAILED: 07/17/2002

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Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No. 09/433,730	Applicant(s) Jaffe et al.
Examiner Young Tse	Art Unit 2634

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136 (a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1) Responsive to communication(s) filed on May 9, 2002

2a) This action is FINAL. 2b) This action is non-final.

3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11; 453 O.G. 213.

4) Claim(s) 10 and 105-110 is/are pending in the application.

4a) Of the above, claim(s) _____ is/are withdrawn from consideration.

5) Claim(s) _____ is/are allowed.

6) Claim(s) 10 is/are rejected.

7) Claim(s) 105-110 is/are objected to.

8) Claims _____ are subject to restriction and/or election requirement.

Application Papers

9) The specification is objected to by the Examiner.

10) The drawing(s) filed on _____ is/are a) accepted or b) objected to by the Examiner. Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

11) The proposed drawing correction filed on _____ is: a) approved b) disapproved by the Examiner. If approved, corrected drawings are required in reply to this Office action.

12) The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

13) Acknowledgement is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a) All b) Some* c) None of:

- Certified copies of the priority documents have been received.
- Certified copies of the priority documents have been received in Application No. _____.
- Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

*See the attached detailed Office action for a list of the certified copies not received.

14) Acknowledgement is made of a claim for domestic priority under 35 U.S.C. § 119(e).

a) The translation of the foreign language provisional application has been received.

15) Acknowledgement is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

1) Notice of References Cited (PTO-892)

2) Notice of Draftsperson's Patent Drawing Review (PTO-948)

3) Information Disclosure Statement(s) (PTO-1449) Paper No(s). _____

4) Interview Summary (PTO-413) Paper No(s). _____

5) Notice of Informal Patent Application (PTO-152)

6) Other: _____

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DETAILED ACTION

Specification

1. The disclosure is objected to because of the following informalities: on page 28, line 16, "56" should be changed to --28--. Appropriate correction is required.

Claim Rejections - 35 USC § 102

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless --

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

(e) the invention was described in a patent granted on an application for patent by another filed in the United States before the invention thereof by the applicant for patent, or on an international application by another who has fulfilled the requirements of paragraphs (1), (2), and (4) of section 371© of this title before the invention thereof by the applicant for patent.

3. Claim 10 is rejected under 35 U.S.C. 102(b) as being anticipated by Eyuboglu.

Eyuboglu (U.S. Patent No. 4,745,625) discloses a receiver circuit (29) in Fig. 1 which includes three tracking loops. The first tracking loop includes a multiplier (40) and a carrier recovery (42) for acquiring carrier frequency lock of a predetermined frequency component X_k . The second tracking loop includes a linear equalizer (38), the multiplier (40), and a weight update circuit (46) in operative response to the predetermined frequency component X_k . The third tracking loop includes a sampler A/D converter (34) and a timing recovery circuit (36) for

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providing a symbol timing parameter or a timing recovery signal in operative response to the predetermined frequency component X_k .

4. Claim 10 is rejected under 35 U.S.C. 102(e) as being anticipated by Tsui et al..

Tsui et al. (U.S. Patent No. 6,278,730) discloses a receiver circuit (106) in Fig. 2A which includes three tracking loops. The first tracking loop includes a tuning/down conversion circuit (208), a sampling rate circuit (210), an adaptive equalizer (214), a symbol decision circuit (216), and a carrier recovery (222) for acquiring carrier frequency lock of a predetermined frequency component from a front end receiver circuit (202, 204, and 206). The second tracking loop includes the adaptive equalizer (214), the symbol decision circuit (216), and an equalizer weight update circuit (220) in operative response to the predetermined frequency component. The third tracking loop includes the sampling circuit (210) and a baud timing recovery circuit (212) for providing a symbol timing parameter or a timing recovery signal in operative response to the predetermined frequency component.

Allowable Subject Matter

5. Claims 105-110 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

6. The following is a statement of reasons for the indication of allowable subject matter: the prior art fails to show or suggest that a first mixer is lying in the first loop, a second mixer is

lying in the second loop, and a signal sampler is lying in the third loop of a digital communication system.

Response to Arguments

7. Applicant's arguments filed May 9, 2002 have been fully considered but they are not persuasive.

Applicants argue that as stated on page 3, lines 7-19, and numerous other places in Applicants' written description, the claimed digital communication system processes a pilot signal called "an inserted predetermined frequency component" in claim 10. Claim 10 further provides that the three loops operate in response to the predetermined frequency component. This requirement is not disclosed in the references relied upon by the examiner.

In claim 10, it is not true that the three loops operate in response to the predetermined frequency component, but not the pilot signal. The specification is not the measure of invention. Therefore, limitations contained therein can not be read into the claims for the purpose of avoiding the prior art. In re Sporck, 55 CCPA 734, 386 F.2d 924, 155 USPQ 687 (1968).

Conclusion

8. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

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A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to **Young Tse** whose telephone number is **(703) 305-4736**.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, **Stephen Chin**, can be reached at **(703) 305-4714**.

Any response to this action should be mailed to:

Commissioner of Patents and Trademarks
Washington, D.C. 20231

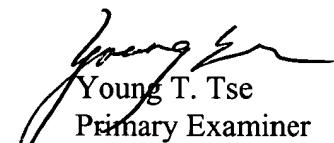
or faxed to:

(703) 872-9314 (for Technology Center 2600 only)

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Hand-delivered responses should be brought to Crystal Park II, 2121 Crystal Drive, Arlington, VA., Sixth Floor (Receptionist).

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the Technology Center 2600 Customer Service Office whose telephone number is (703) 306-0377.



Young T. Tse
Primary Examiner
July 15, 2002